

**Amendments to the Claims:**

This listing of claims will replace all prior versions, and listings, of claims in the application:

**Listing of Claims:**

1. (Currently amended): A method for determining dynamic parameters of movement of an object in sports competitions or training, using recording an object motion trajectory in an infrared spectral range, the method comprising:

recording, ~~by an infrared camera operating in an infrared range of 3-12  $\mu$ m,~~  
trajectories of infrared footmarks resulting from an interaction of the object with a  
surrounding object or a surrounding environment by a computer operating  
according to corresponding software; and

~~recording and analyzing, by a computer operating according to corresponding~~  
~~software, dynamic changes of the trajectories of the infrared footmarks of the object;~~  
~~and,~~

calculating ~~object movement~~ parameters of movement of the object.

2. (Currently amended): The method according to claim 1, wherein  
trajectories of the infrared footmarks are recorded in different spectral ranges  
within the a middle infrared range ~~of 3-12  $\mu$ m.~~

3. (Currently amended): The method according to claim 1, further  
comprising recording trajectories of shadows resulting from an interaction of the

object with concentrated or distributed external ~~infrared~~ sources of infrared radiation within ~~the~~ a middle infrared range of ~~3-12  $\mu$ m~~.

4. (Previously presented): The method according to claim 1, wherein in tennis, an area of a ball contact with a court and a time moment of ball impingement with a court surface are determined using break of the trajectories of the infrared footmarks.

5-11. (cancelled)

12. (new): A method of evaluating a skill of a sportsman using a method of claim 1.

13. (new): A method of evaluating a skill of a sportsman using a method of claim 2.

14. (new): A method of evaluating a skill of a sportsman using a method of claim 3.

15. (new): A method of evaluating a skill of a sportsman using a method of claim 4.